

REMARKS

Claims 39, 41-46, 48, 50-55, 74-83, and 94-97 are pending in this application. Applicant acknowledges the allowance of claims 39, 41-46, 48, 50-55, 75-79, 94, and 95. Claims 74, 96 and 97 have been amended.

Claims 96 and 97 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 96 and 97 have been amended to address the rejections. Applicant respectfully submits that claims 96 and 97 are in full compliance with 35 U.S.C. §112.

Claims 74 and 80-83 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hosotani et al., U.S. Patent No. 6,051,859 (hereinafter “Hosotani”) in view of Desu et al., U.S. Patent No. 6,139,780 (hereinafter “Desu”). The rejection is respectfully traversed.

Claim 74 recites a capacitor having a first electrode having two sidewall regions and a second level and “an ion implantation doped BST high dielectric constant thin film material having a substantially uniform stoichiometry formed over said at least two sidewall regions and over said second level.” The claim further recites that the ion implantation doped BST high dielectric constant thin film material is “a continuous layer at least on said two sidewall regions and said second level.” A second electrode is provided on the BST high dielectric thin film material.

Although Hosotani teaches a cup-shaped capacitor comprising a substrate, first electrode, dielectric film, and second electrode, it does not teach or suggest an ion implantation doped BST thin film material having a substantially uniform stoichiometry. Similarly, although Desu teaches doping a BST layer with acceptor type dopants, Desu fails to teach or suggest a BST thin film material having a substantially uniform stoichiometry. For at least this reason, Applicant respectfully submits that claim 74 is allowable.

Application No.: 09/633,132

Docket No.: M4065.0139/P139-A

Claims 80-83 depend from claim 74. Claims 80-83 contain every limitation of claim 74, and are allowable along with claim 74. Accordingly, the rejection should be withdrawn and the claims allowed.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

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